

SLOT AREA UNDERCUT FOR SEGMENTED STATORS

ABSTRACT OF THE DISCLOSURE

5 A stator for an electric machine such as a motor or a generator includes a plurality of stator segment assemblies. The stator segment assembly includes a stack of stator plates forming a stator segment core. The stator plates include an outer rim section and a tooth section that extends radially inwardly from a center portion of the outer rim section. A radially inner surface of the outer rim section is generally perpendicular to the tooth section. Undercut portions are formed in the radially inner surface of the outer rim section adjacent to the center portion. The undercut portions increase slot area and allow additional winding wire to be wound around the stack. The additional winding wire increases the current carrying capacity of the electric machine through reduced resistance or increased torque per unit volume.

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